



ELECTRONIC TUBE REFERENCE

6FJ7

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Dual triode intended for television vertical-deflection service, combining oscillator/driver and power-output functions where applicable. Manufacturer data emphasize vertical-sweep operation, pulse-voltage capability, and the stronger section's current and dissipation requirements.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	12
NOMINAL HEATER	6.3 V / 900 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	9000 Ω
TRANSCONDUCTANCE	0.0025 S
AMPLIFICATION FACTOR	22.5
MAXIMUM PLATE VOLTAGE	350 V
MAXIMUM PLATE DISSIPATION	1 W
Section 1, vertical oscillator service.	

SECTION2 Triode	
PLATE RESISTANCE	2000 Ω
TRANSCONDUCTANCE	0.0077 S
AMPLIFICATION FACTOR	15.4
MAXIMUM PLATE VOLTAGE	550 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM CATHODE CURRENT	50 mA
<i>Section 2, vertical-deflection amplifier service; 50 mA DC cathode-current maximum.</i>	

Dissimilar medium-mu dual triode with separate high-current sections. The supplied RCA datasheet was reviewed for heater data, maximum ratings, characteristics, typical operating conditions, capacitances, and application-specific electrical information.



SOURCE OPERATING CONDITIONS

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1968 General Electric Co

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1968 GENERAL ELECTRIC CO

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Oscillator
Plate Current	8 mA	Oscillator

1968 GENERAL ELECTRIC CO

Section 2 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Amplifier
Plate Current	41 mA	Amplifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	2500 V	VerticalDeflectionAmplifier
Peak Cathode Current	150 mA	VerticalDeflectionAmplifier



SOURCE OPERATING CONDITIONS

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Published test conditions and operating points. Values on this page are preserved as reported by this source.

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Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Plate current	8 mA	ClassA
Maximum plate voltage	350 V	—
respect to cathode	200 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
respect to cathode	200 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
DC PLATE VOLTAGE	350 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
PEAK NEGATIVE-PULSE GRID VOLTAGE	400 V	Pulse
PLATE DISSIPATION	1 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
bias operation – published value 1	2 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
bias operation – published value 2	2 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
DC PLATE VOLTAGE	550 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
PEAK POSITIVE-PULSE PLATE VOLTAGE ^e	2500 V	Pulse
PEAK NEGATIVE-PULSE GRID VOLTAGE	250 V	Pulse
PLATE DISSIPATION	10 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	9000 ohm	ClassA
Transconductance	2500 uS	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	22.5	ClassA
Voltage (AC or DC) – published value 1	6.3 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Voltage (AC or DC) – published value 2	0.6 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Current at heater volts = 6.3 – published value 1	6.3 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Current at heater volts = 6.3 – published value 2	0 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Current at heater volts = 6.3 – published value 3	900 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid to plate – published value 1	3.8 pF	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid to plate – published value 2	5 pF	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid to cathode and heater – published value 1	2.2 pF	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid to cathode and heater – published value 2	4 pF	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate to cathode and heater – published value 1	0.48 pF	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate to cathode and heater – published value 2	0.54 pF	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Voltage – published value 1	250 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Voltage – published value 2	150 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Voltage – published value 3	250 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage – published value 1	-8 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid Voltage – published value 2	0 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid Voltage – published value 3	-9.5 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Resistance (Approx) – published value 1	9000 ohm	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Resistance (Approx) – published value 2	2000 ohm	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Transconductance – published value 1	2500	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Transconductance – published value 2	7700	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Current – published value 1	8 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Current – published value 2	68 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Current – published value 3	41 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
for plate $\mu_a = 10$ – published value 1	10 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
for plate $\mu_a = 10$ – published value 2	-18 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
for plate $\mu_a = 50$ – published value 1	50 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
for plate $\mu_a = 50$ – published value 2	-23 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 1 -Heater – published value 1	1	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 1 -Heater – published value 2	8	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 2 -No Internal – published value 1	2	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 2 -No Internal – published value 2	9	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 3 -Grid of Unit – published value 1	3	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 3 -Grid of Unit – published value 2	10	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 4 -Same asPin2 – published value 1	4	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 4 -Same asPin2 – published value 2	11	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 5 -Plate of	5	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Pin 7 -Cathode of	7	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
For fixed-bias operation – published value 1	2 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
For fixed-bias operation – published value 2	2 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

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Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	41 mA	ClassA
Maximum plate voltage	550 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	2000 ohm	ClassA
Transconductance	7700 uS	ClassA
Amplification factor	15.4	ClassA
Unit No.2	12	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

TUBE TINKER

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